

**Defense Information Infrastructure (DII)  
Common Operating Environment (COE)**

**Installation Procedures (IP)  
for the  
METOC Channels Database (MDCHNL) Segment  
(Solaris Version)  
Release 1.2 Series**

**10 August 2001**

**Prepared for:**

**Space and Naval Warfare Systems Command  
Environmental Systems Program Office  
(SPAWAR PMW-155)**

**Prepared by:**

**Fleet Numerical Meteorology and Oceanography Center  
Monterey, CA**

**and**

**Computer Sciences Corporation  
Monterey, CA**



## Table of Contents

<b>1</b>	<b>SCOPE.....</b>	<b>1</b>
1.1	Identification .....	1
1.2	System Overview .....	1
<b>2</b>	<b>REFERENCED DOCUMENTS .....</b>	<b>3</b>
2.1	Government Documents.....	3
2.2	Non-Government Documents .....	4
<b>3</b>	<b>SYSTEM ENVIRONMENT .....</b>	<b>5</b>
3.1	System Requirements.....	5
3.1.1	Hardware Requirements.....	5
3.1.2	Operating System Requirements.....	5
3.1.3	Kernel Requirements.....	5
3.2	System and Site Preparations .....	5
3.2.1	System Configuration.....	5
3.2.2	Operating System Preparation.....	5
3.2.3	Tape/Disk Preparation.....	6
<b>4</b>	<b>INSTALLATION INSTRUCTIONS.....</b>	<b>7</b>
4.1	Media Booting Procedures.....	7
4.2	Installation Procedures .....	7
4.3	Installation of Upgrades .....	8
4.4	Installation Verification.....	8
4.5	Initializing the Software .....	8
4.6	List of Changes and Enhancements .....	8
4.7	Important Considerations .....	8
4.8	Uninstalling the MDCHNL Segment.....	8
<b>5</b>	<b>NOTES .....</b>	<b>11</b>
5.1	Glossary of Acronyms.....	11
5.2	Starting an xterm .....	12

5.3	Starting the Informix Server.....	12
-----	-----------------------------------	----

# 1 SCOPE

## 1.1 Identification

These Installation Procedures (IP) describe the installation of the METOC Channels Database Segment (MDCHNL) of the METCAST data distribution software, Release 1.2 Series, developed by Fleet Numerical Meteorology and Oceanography Center (FNMOC), Monterey, CA. This software was compiled with the Defense Information Infrastructure (DII) Common Operating Environment (COE), release 4.4. The software runs under the following hardware and operating systems:

- Sun Enterprise 250 or higher computer running the Sun Solaris operating system, release 2.8.

This document has been developed in accordance with the *DII COE Developer Documentation Requirements, Version 2.0*.

## 1.2 System Overview

METCAST is a standards-based, request-reply and subscription (channel) system for distributing weather information over the Internet using Hyper-Text Transfer Protocol (HTTP) and Multipurpose Internet Mail Extensions (MIME). The METCAST Server Segment is responsible for processing requests for data from METCAST Clients, interfacing with a database to attempt to satisfy each request, and formatting the retrieved data as specified in the request before returning the data to the client. The METCAST Client comprises a separate segment. The MDMETC segment provides the observations database for METCAST Server.

The full METCAST Server installation requires three segments: MDCHNL, MDMETC (the observation database segment) and MCSRV (METCAST Server itself). **These segments must be installed in the following order:**

1. MDCHNL
2. MDMETC (**NOTE:** This segment requires version **2.0.0.0 / 9.21** of the Informix Server Foundation (INFXSF) segment. If INFXSF 2.0.0.0 / 9.21 is not present on the system, this segment should not be installed. MCSRV can still be installed, but will not have access to observations.)
3. MCSRV (must be installed last, but requires MDMETC only if observations are to be processed).

This page intentionally left blank.

## 2 REFERENCED DOCUMENTS

### 2.1 Government Documents

DDR-2 23 January 1998	<i>Defense Information Infrastructure (DII) Common Operating Environment (COE) Developer Documentation Requirements, Version 2.0, Defense Information Systems Agency, Joint Operability and Engineering Organization</i>
Unnumbered 18 June 1998	<i>Software Requirements Specification for METCAST, Space and Naval Warfare Systems Command, Environmental Systems Program Office (SPAWAR PMW-155), San Diego, CA</i>
fnmoc_METCAST_IP_15Series 04 June 2001	<i>Installation Procedures (IP) for the METCAST Client Segment, release 1.5 Series</i>
fnmoc_METCAST_UM_1500 04 June 2001	<i>User Manual (UM) for the METCAST Client Segment, release 1.5</i>
fnmoc_MDCHNL_IP_12Series 10 August 2001	<i>Installation Procedures (IP) for the METCAST Channels Database (MDCHNL) Segment, Release 1.2 Series</i>
CM-30603 04 February 2001	<i>DII COE Kernel v4.2.0.0 Installation Guide for Solaris 2.7/2.8</i>
CM-41835 2 April 1997	<i>Errata Sheets to the Installation Procedures (IP) for Kernel version 4.2.0.0 (Solaris 2.8)</i>
CM-43184 22 February 2001	<i>Installation Procedures and Software Version Description for DII COE 4.2.0.0 Kernel Patch 4 version 4.2.0.0P4 for Solaris 2.8</i>
ipd4400magridipTES-10 29 January 1999	<i>Installation Procedures (IP) for the Grid Field Application Program Interface (API) Segment (MAGRID) of the Tactical Environmental Support System (Next Century) [TESS(NC)] Meteorological and Oceanographic (METOC) Database</i>

ipd4400mdgridipTES-10 29 January 1999	<i>Installation Procedures (IP) for the Grid Field Database Segment (MDGRID) of the Tactical Environmental Support System (Next Century) [TESS(NC)] Meteorological and Oceanographic (METOC) Database</i>
ipd4200malltipTES-10 9 October 1998	<i>Installation Procedures (IP) for the Latitude-Longitude-Time (LLT) Observations Application Program Interface (API) Segment (MALLT) of the Tactical Environmental Support System (Next Century) [TESS(NC)] Meteorological and Oceanographic (METOC) Database</i>
ipd4300mdlltipTES-10 9 October 1999	<i>Installation Procedures (IP) for the Latitude-Longitude-Time (LLT) Observations Database Segment (MDLLT) of the Tactical Environmental Support System (Next Century) [TESS(NC)] Meteorological and Oceanographic (METOC) Database</i>
ipd4200maimgiptes-10 9 October 1998	<i>Installation Procedures (IP) for the METOC Imagery Application Program Interface (API) Segment (MAIMG) of the Tactical Environmental Support System (Next Century) [TESS(NC)] Meteorological and Oceanographic (METOC) Database</i>
ipd4400mdimgipTES-10 29 January 1999	<i>Installation Procedures (IP) for the METOC Imagery Database Segment (MDIMG) of the Tactical Environmental Support System (Next Century) [TESS(NC)] Meteorological and Oceanographic (METOC) Database</i>

## 2.2 Non-Government Documents

None.



## **3 SYSTEM ENVIRONMENT**

### **3.1 System Requirements**

#### **3.1.1 Hardware Requirements**

The METOC Observations Database segment is hosted on the following hardware:

- Sun Enterprise 250 or higher

The following configurations are recommended:

- Sun Enterprise 450: RAM: 512 MB minimum,  
Disk Space: 200 GB

#### **3.1.2 Operating System Requirements**

- Sun: Solaris 2.8

#### **3.1.3 Kernel Requirements**

- Solaris 2.8: Kernel 4.2.0.0 with patch P4

### **3.2 System and Site Preparations**

#### **3.2.1 System Configuration**

The following software must be properly installed prior to loading the MDCHNL segment:

- Appropriate operating system (as described above)
- Appropriate DII COE Kernel (as described above)
- DII COE Informix Server Foundation segment (INFXSF), version 2.0.0.0 / 9.21.
- DII COE DBAdm Account Group segment version 3.0.0.0
- DII COE DBAdmR segment version 3.0.0.0

#### **3.2.2 Operating System Preparation**

Information needed to prepare the operating system is found in these documents:

Solaris 2.8:

- DII COE Kernel v4.2.0.0 Installation Guide for Solaris 2.7/2.8
- DII COE 4.2.0.0 Kernel Patch 4 version 4.2.0.0P4 Installation Procedures and Software Version Description for Solaris 2.7/2.8
- DII COE Errata Sheets to Installation Procedures (IP) for Kernel version 4.2.0.0 (Solaris 2.8)

### **3.2.3 Tape/Disk Preparation**

The METCAST Server Channels Database segment software is delivered on CD-ROM for the Sun hardware environment.

## 4 INSTALLATION INSTRUCTIONS

Installation on Solaris systems is performed using the DII COE Segment Installer.

### 4.1 Media Booting Procedures

To prepare media (CD-ROM, DAT tape etc) for installation:

1. Insert the media into the appropriate drive.
2. Log in as sysadmin.
3. Open the DII COE SEGMENT INSTALLER: To do so, right click on the Screen background and select **Applications** from the popup menu. Select **Applications Manager** from the next pull down menu, and then double click on the **DII APPS** folder. Select the **SysAdm** folder by double clicking on it, and then double click on the **Segment Installer** folder. The Installer Window will then appear.
4. Click on the **Select Source** button, and choose the appropriate **host** and **device** from the dialog box.
5. Select the **MDCHNL** segment from the **Files** window, and click on the **OK** button.
6. This will return you to the Installer Window. Select **Read Contents** and verify that the **MDCHNL** segment is present in the **Software to Install** window. Proceed to Section 4.2.

### 4.2 Installation Procedures

(Note: Prior to segment installation, ensure that no existing MDCHNL segment is installed on the target platform. If there is a **METOC Channels Database** segment listed in the **Currently Installed Segments** section of the window, select it, then select the **Deinstall** button and follow the instructions on the screen to remove the MDCHNL segment.)

To install the METOC Channels Database software:

1. First ensure that the operating system (OS) and Kernel, with all patches, are installed. Instructions for installing the OS, Kernel, and patches are contained in the documentation cited in Section 3.2.2.
2. Ensure that the Informix server is UP. Open an xterm window (see Section 5.2) and type: the following command on the cmd line: `/opt/informix/bin/onstat - <Enter>`, where <Enter> means press the Enter or Return key. In the listing that appears, look for the response: **On-Line**. If it is present, the Informix Server is UP. If not, see Section 5.3 for instructions for starting the Informix server (a database administrator must do this). Close the xterm window after verifying the server status.
3. Proceed with the Installation by highlighting the **METOC MDCHNL Channels Database Segment** in the **Software to Install** window, and then click on the **Install** button.

4. The INSTALL STATUS dialog box will appear, which will display the software loading status in a % format.

Once the installation is complete, the Segment Installer window will appear. The **METOC Channels Database Segment** will be displayed in the **Currently Installed Segments** section of the window.

5. At the end of the installation, an Update Security Database dialog will open showing changes to the database and asking "Do you wish to delete (or add) these entries from (to) the database?" Answer n <Enter> each time this question is asked (the question will be repeated a number of times for different entries).

### 4.3 Installation of Upgrades

Installation of upgrades will generally follow the same procedures listed above.

### 4.4 Installation Verification

All successfully installed segments are listed in the **Currently Installed Segments** portion of the DII COE **Segment Installer** window.

### 4.5 Initializing the Software

No initialization is specifically required.

### 4.6 List of Changes and Enhancements

Other than minor evolutionary bug fixes, no significant changes are included in v1.2.0.0 of the METCAST Channels Database (MDCHNL) segment.

### 4.7 Important Considerations

This section is tailored out.

### 4.8 Uninstalling the MDCHNL Segment

The MDCHNL segment may be uninstalled using the DII COE SEGMENT INSTALLER as described below:

1. Open the DII COE **Segment Installer** by right clicking on the Screen background and then select **Applications** from the popup menu. Select **Applications Manager** from the next pull down menu, and then double click on the **DII APPS** folder. Double click on the **SysAdm**

folder, and then double click on the **Segment Installer** folder. The Installer Window will appear.

2. In the **Currently Installed Segments** window, locate the **Metcast Channels Database (MDCHNL)** Segment and click on it to highlight it.
3. Click on the **Deinstall** button and follow the prompts to uninstall the segment.

This page intentionally left blank.

## 5 NOTES

### 5.1 Glossary of Acronyms

COE	Common Operating Environment
DII	Defense Information Infrastructure
FNMOCC	Fleet Numerical Meteorology and Oceanography Center
GUI	Graphical User Interface
HTTP	Hyper-Text Transfer Protocol
IP	Installation Procedure
IP	Internet Protocol
INFXSF	Informix Server Foundation Segment
MCSRVR	METCAST Server Segment
MDCHNL	METOC Channels Segment
MDMETC	METOC Observations Database Segment
METCAST	METOC Broadcast
METOC	Meteorological and Oceanographic
MIME	Multipurpose Internet Mail Extensions
PC	Personal Computer
SRS	Software Requirements Specification
SVD	Software Version Description
T&E	Test and Evaluation
TCP	Transport Control Protocol
UM	User Manual

## 5.2 Starting an xterm

Several parts of the installation procedures require the operator to start an xterm and enter commands. To open an xterm:

1. Log in as sysadmin.
2. Go to the tool bar at the bottom of the screen and double-click on the file drawer (File Manager) icon to open the File Manager.
3. Double-click on the DII\_APPS folder to open it.
4. Double-click on the SA\_Default folder to open it.
5. Double-click on the XTerm icon to open an xterm.
6. You can now log in in the xterm.

## 5.3 Starting the Informix Server

1. Log out and log in as dbadmin.
2. Ensure that the Informix server is running. Click on **Database Control** on the menu bar, then select **Server Control** from the drop-down menu. If the dialog that appears says Informix server is DOWN, click on the Start Server button. This should start the Informix server, and the dialog should say the server is UP. When the server is up, close the dialog.
3. Log out and log in as sysadmin.